

IN THE CLAIMS

1. (Currently amended) A dental hand piece, comprising:

a casing having an open front end, a rear end, an air inlet near said front end, and an air outlet near said rear end;

a rear bearing inside said casing close to said rear end thereof;

an axial flow air turbine, having an axial flow turbine wheel with a plurality of blades, performing a rotational movement driven by compressed driving air exerting force in an axial direction against said blades, and

an axial airflow pattern from said front end toward said rear end;

a front bearing inside said casing close to said front end thereof;

an axis, carrying said air turbine and said rear and front bearings, further having a front end with a central hole for receiving a drill head; and

a front housing cap attached to said open front end of said casing, having a seal between said front housing cap and said casing, and

a central hole for passing said axis through said front housing cap.
2. (Cancelled)
3. (Currently amended) The dental hand piece according to claim 1, wherein ring-shaped channels are provided between outer peripheries of said front and rear bearings and said casing, providing compressed driving air to the inlet, and exhausting air from the outlet, of said blades of said turbine wheel.
4. (Currently amended) The dental hand piece according to claim 1, wherein a front radial-to-axial airflow deflector is placed in front of said turbine wheel of said air turbine.
5. (Cancelled)
6. (Currently amended) The dental hand piece according to claim 1, wherein front and rear radial-to-axial airflow deflectors are respectively placed in front of and behind said turbine wheel of said air turbine.
7. (Previously presented) The dental hand piece according to claim 1, wherein a housing of said drill head incorporates said front housing cap.

8. (Previously presented) The dental hand piece according to claim 1, wherein said air inlet is cut through said casing near to said open front end thereof.
9. (Previously presented) The dental hand piece according to claim 1, wherein said air outlet is cut through said casing near to a rear end thereof.
10. (Previously presented) The dental hand piece according to claim 1, wherein said air inlet reaches to a front ring-shaped channel between an outer periphery of said front bearing and said casing.
11. (Previously presented) The dental hand piece according to claim 1, wherein said air outlet reaches to a rear-shaped ring channel between an outer periphery of said rear bearing and said casing.
12. (Previously presented) The dental hand piece according to claim 10, wherein a sealing ring is inserted between said drill head and said air outlet, for preventing any fluid or gas from said drill head to flow into said air outlet.
13. (Cancelled)